



Missouri Department of Natural Resources

Water Quality Coordinating Committee Water Protection Program

Minutes

April 19, 2005

WATER QUALITY COORDINATING COMMITTEE

UMC – FAPRI
101 Park DeVille Drive, Suite E
Columbia, Missouri

April 19, 2005
10:00 a.m.

MEETING AGENDA

Update on Atrazine Issues, Rex Martin, Dennis Tierney & Dennis Kelly,
Syngenta Crop Protection

SWDA Pesticide Data for 2004, Terry Timmons, Public Drinking Water Branch, WPP

Preliminary Results of the Assessment of Water Quality and Carbon Sequestration Benefits
of the Conservation Reserve Program, Verel Benson

Other

Agency Activities

Meetings & Conferences

Directions to the FAPRI location:

From I-70 take exit 124 Stadium Blvd south, turn right on Broadway and go to the second stoplight and turn right on Park DeVille Dr., FAPRI is the second building on the left and is marked with signs.

From Highway 63 take Stadium west, turn left on Broadway.

MISSOURI WATER QUALITY COORDINATING COMMITTEE

April 19, 2005

UMC – FAPRI
101 Park DeVille Drive, Suite E
Columbia, Missouri

MINUTES

Attendees:

Becky Shannon	DNR/WPSCD/WPP-WPCB	Wayne Maresch	DNR/Env. Assistance Office
Tim Healy	Lange-Stegmann Company	Steve Taylor	Env. Resources Coalition
Terry J. Satterlee	Lathrop & Gage	Rex Martin	Syngenta
Tod Hudson	DNR/WPSCD/WPP-WPCB	Michelle Motley	USDA-Farm Service Agency
Tony Thorpe	UMC Lakes of MO Volunteer Pgm	Claire Baffaut	UMC FAPRI
Dan Obrecht	UMC Lakes of MO Volunteer Pgm	Karen Bataille	MDC
Pete Davis	EPA Region VII	Walaipon Intarapapong	UMC FAPRI
Mohsen Dkhili	DNR/WPSCD/WPP-WPCB	Wendi Rogers	UMC FAPRI
Phil Schroeder	DNR/WPSCD/WPP-WPCB	Terry Frueh	Bonne Femme Project/Boone Co.
Dick Wiechman	EPA Region VII	Cindy DiStefano	MO Dept. of Conservation
Paul Andre	MO Dept. of Agriculture	Steve Fischer	US COE
Bob Broz	UMC Extension, WQ Program	Randy Lyman	Springfield Public Works
Dale Blevins	USGS-Lee's Summit	Michael Heaton	DNR/WPSCD/NERO
Stacia Bax	DNR/WPSCD/WPP-WPCB	Jack Dutra	JD Information Services, Inc.
Terry Timmons	DNR/WPSCD/WPP-PDWB	Dean Martin	DNR/WPSCD/SWCP
Ken Struempfl	DNR/WPSCD/SWCP	Dennis Tierney	Syngenta
Verel Benson	UMC FAPRI	Darlene Schaben	DNR/WPSCD/WPP-WPCB
Bob Ball	USDA-NRCS	Angel Kruzen	Water Sentinel

Abner Womack welcomed the group to the FAPRI building. Introductions were made.

Update on Atrazine Issues, Dennis Tierney, Syngenta Crop Protection

PowerPoint Presentation (contact Darlene Schaben for a copy of the presentation)

Handout: "Using Best Management Practices to Protect Water Quality – Guidelines for Corn/Sorghum Producers and Sugarcane Growers"

Dennis has worked with Syngenta in North Carolina for about 20 years. He presented information about the atrazine program under the Interim Registration Eligibility Decision (IRED) and Memorandum of Agreement (MOA) that registrants have signed and how the ecological monitoring program is structured under that program. In November 1994, atrazine, cyanazine and simazine were placed in the Special Review Program. A Draft IRED was released by EPA in January 2003 with a revision released in October 2003. The MOA was initially signed in January 2003 and revised in May 2004. Five registrants of Syngenta, the Dept. of Justice and EPA have signed the MOA, which includes the terms and conditions under which atrazine reregistration will move forward. Currently, EPA is reviewing simazine under the reregistration document. A reregistration eligibility decision should be out this year for simazine. Once this is completed EPA will put together cumulative risks on the triazines and have a proposed reregistration eligibility decision. The IRED conclusions can be reviewed at www.epa.gov/pesticides. All registrants will have the same labeling. Of the mitigation requirements, there are three monitoring programs in effect--Atrazine Monitoring Program (AMP), Stewardship Mitigation Program, Ecological Monitoring Program. The AMP looks at selected Community Water Systems (CWS) on surface water; Stewardship Mitigation Program

looks for specific watersheds and associated source waters for CWS. Of the 8 watersheds in the U.S., EPA has identified that 2 in Missouri are Dearborn and Bucklin. The Ecological Monitoring Program looks at aquatic life in surface waters (3 sites in Missouri). The major difference between the existing MCL of atrazine and the EPA Office of Pesticide Program's (OPP) review is that in the health effects assessment document, the agency not only looks at atrazine but also at its 3 chloro metabolites. The agency has determined that the mode of action is similar to the parent of metabolites, so they should be added together. They have also determined that simazine's mode of action is the same. Total chloro-triazines (TCT) then becomes the standard of OPP. If a CWS had an annual average concentration of TCT equal to or greater than 2.6 ppb in one or more years, they were invited to join the monitoring program. If the system declined to join on a voluntarily basis, then Syngenta and other registrants were required to set up a third party sampling. Dennis explained how the monitoring program worked. CWSs were required to stay in the program for five years. Mitigation steps were taken after the first exceedance. After two exceedances in this period, use of atrazine in that watershed would be cancelled. To find out if a watershed is prohibited from using atrazine, dealers can check the Web site (www.atrazine-watershed.info). As of April 1, 2005, there are 17 CWS in Missouri participating in the AMP. Several studies have been done. Dennis showed some of the results.

The goals of the MOA and Watershed Stewardship Program are not to exceed the atrazine MCL (3 ppb annual mean) in finished water, not to exceed TCT in drinking water levels of comparison (12.5 ppb annual mean) in finished water, and not to exceed TCT in drinking water levels of comparison (37.5 ppb 90-day rolling average) in raw water at CWS intake locations. If there is a violation in finished water at the CWS in Missouri, the registrants will develop an implementation schedule and meet with DNR and the Dept. of Agriculture to agree on the plan. If the plan is not agreed to, atrazine use would be prohibited in the watershed.

Mitigation plans for the eight 'one-strike' watersheds had to be submitted to EPA by August 1, 2003. In Missouri, the Dearborn plant closed; Bucklin has a mitigation plan in place. The success of the plan is dependent upon the growers and dealers.

The Ecological Monitoring Program includes 40 sites in the corn-sorghum use area of the U.S. Dennis explained the sampling schedule. The objectives of the program are to determine to what extent that waters are exceeding effects-based thresholds for atrazine and determine where the waters are that are exceeding effects-based atrazine thresholds. In choosing a monitoring strategy, existing knowledge was used about atrazine occurrence in water to maximize the potential for finding waters with levels of comparison exceedance. If exceedances were found, a total maximum daily load (TMDL) study was conducted and additional monitoring was done in other sites in the watershed suspected to be similar to the index site. EPA recommends use of the Comprehensive Aquatic Systems Model (CASM), an aquatic ecological food chain model. The model can characterize potential ecological risks (aquatic community) in relation to atrazine exposure, duration and magnitude.

In summary, the monitoring and mitigation plan is a coordinated effort between EPA's Office of Water and OPP. The atrazine level of concern and aquatic life criteria are the same. The 40 sites are believed to be the most vulnerable for atrazine. Monitoring sites in Missouri are located in the South Fabius River in Knox and Lewis counties, Youngs Creek in Audrain and Boone counties, and Little Sni-A-Bar in Lafayette County. The monitoring will provide information to help evaluate the 1172 most vulnerable watersheds. The process is a coordinated effort with states, regions and EPA Headquarters.

If you are interested in receiving an electronic or paper copy of the PowerPoint presentation, send an e-mail request to Darlene at darlene.schaben@dnr.mo.gov.

SWDA Pesticide Data for 2004, Terry Timmons, Public Drinking Water Branch, WPP

Handouts: Summary of Pesticides Detects in Missouri Public Drinking Water Systems Utilizing Surface Water; Pesticide Results/Running Annual Average for Quarter Ending 12/31/2004

Terry indicated they have not had many problems with atrazine issues in public water supplies lately and have been focusing on disinfection by-products and standards on surface water treatment. The data used is public water system data. The water sampled is treated water. Powdered activated carbon (PAC) treating is the most common used. Terry clarified that the atrazine issues in Missouri are a surface water problem and not a ground water problem. The MCL on monitoring requirements was effective in the late 1980's. The first monitoring required of public water supplies was in 1993. The program received FIFRA funding in 1993, which was used for testing all Missouri ground water sources. More comprehensive testing has since been done. Very few problems were found. Terry felt it has paid off to have regulations that govern siting and construction of public water supply wells that protect drinking water sources. In the handout, except for Kansas City, St. Louis, and Missouri American Division in St. Louis County, all PWS in Missouri use DNR's Environmental Services Program for their lab testing. Those exceptions have contracted with other certified labs. Their data is an average of samples over a quarter period. Missouri has a legal mandate in the Safe Drinking Water Act for DNR to provide all regulatory testing for PWS. All the data are single sample events of once per quarter. Quarterly monitoring is done in watersheds where atrazine detects have historically been seen. Other watersheds have been reduced to once per year.

Terry mentioned that increasingly stringent surface water rules have forced several of the smaller surface water systems out of the business. The City of Creighton will be connecting onto Cass County #11 PWSD; Jamesport will be connecting to Livingston County PWSD. It has been recommended that the city of Armstrong be connected to the Clarence Cannon Wholesale Water Commission through the Thomas Hill PWSD. Harrison County #1 is hooking onto Harrison County #2; Green City is connected to Milan through the Sullivan County PWSD; LaPlata plans to connect to Kirksville's district in a year. Terry indicated more changes would occur once the issues of disinfection by-products were settled.

The handout shows that atrazine is the main concern. In 2004, there were fewer atrazine detects. There have been no MCL violations in the last five years. Support from Syngenta, NRCS, UMC, MCGA, MDA, EPA, and others have helped minimize risks to the customers of the surface water systems in Missouri.

Preliminary Results of the Assessment of Water Quality and Carbon Sequestration Benefits of the Conservation Reserve Program, Verel Benson

PowerPoint Presentation

FAPRI was asked by the Farm Services Agency to do an environmental assessment of the Conservation Reserve Program (CRP) to show probability and risk assessment. Farm Services was interested in soil quality, water quality, wildlife habitat, and air quality. FAPRI looked at 2 models, EPIC and APEX, that would complement water quality monitoring data, analyze the impact of land use change on water quality, and impacts of various management practices on water quality. Verel showed different charts using a model on nitrogen and phosphorus process when manure is applied to a crop field and the impacts. They used over 350 soils that FSA selected to look at 30 states to assess what CRP has done. All this information presented was preliminary as this project is incomplete. Verel talked about the analytical methods used. He showed an example of a model simulation of a 10-year CRP contract looking at nitrogen movement. The model can simulate alternative weather sequences. He showed how weather impacts give different results. Adding different soils provided other results. You could see the variability of nitrogen movement with different soils. He showed simulations of different crops and different soils before and after being in CRP. The results varied from state to state. FAPRI is also doing a comparison on pre-CRP and CRP looking at environmental indicators of sediment loss, wind erosion, nitrogen loss, phosphorus loss, and carbon loss in sediment on conservation tillage, grass, and trees. Verel is currently looking at buffers but

the data is not summarized yet. Using the APEX model allows viewing multiple position on a landscape. You have to be sure to calibrate the logical part of the database you have.

Other

Water Quality Standards Revisions Status, Phil Schroeder

The revised Water Quality Standards have been filed with the Secretary of State's office, Joint Committee Administrative Rules and expected to be published in the *Missouri Register* on May 2, 2005. The public comment period will be extended to July 14, 2005.

A notice will be sent to the WQCC group when they are published. Phil said the draft rules are currently on DNR's Web site. A public hearing will be held July 6, 2005, at the Clean Water Commission meeting in Moberly.

319 Grant Proposals, Becky Shannon

The department is soliciting proposals for funding under the Section 319 Nonpoint Source grant program. The applications are due May 16, 2005. A copy of the RFP was available at the meeting or available on the DNR Web site.

Agency Activities

Randy Lyman said they have started construction on the addition to Springfield's northwest treatment plant to install nitrogen removal, phosphorus removal, remove chlorination and dechlorination into ultraviolet disinfection. It is a \$19 million project and is expected to take a year and one-half. This covers the Sac River and Stockton Lake area.

Terry Frueh is involved in a stakeholder planning effort. Stakeholders include agriculture, business and development, and environmental interests.

Michelle Motley informed the group that selections have been made for the Grassland Reserve Program; they are in the process of notifying those. Michelle is replacing Hillis Rice.

Verel Benson said they are working on an idea to create a SAFE Water Center. This would use Dr. Andy Carson's work in fecal coliform and source tracking for training and education.

Stacia Bax said several Use Attainability Analysis (UAAs) have been submitted. One was from a city and 17 from a sub-contractor, Tetra-Tech. In the future, they plan to make them available on Internet. The UAAs will go before the Clean Water Commission for approval and through a rulemaking before becoming final.

Dale Blevins said they are working on a couple of large urban water quality projects in Kansas City—one with the city of Kansas City focused on combined sewer overflows. One report is completed and another should be out by the end of the year. It also includes biological assessment data on urban streams. Another project is with the city of Independence looking at nonpoint source issues. They are also doing a bank filtration study looking at well fields and water quality benefits from filtering through sand on the Missouri River. This report should be out in about one year.

Bob Broz mentioned Columbia Bottoms in St. Louis is having their general river cleanup and educational programs on April 29-30. This is part of the Big River systems. Bob said last year there were 32 water festivals

held throughout the state. There were over 12,000 students reached in nonpoint source pollution areas in water quality. Many of these festivals were partially funded through 319 grants. Wanda Eubank will be retiring from her position at the Clarence Cannon Wholesale Water Commission 319 project. Bob suggested having her do a presentation to the group on the WRASP project and on some of the educational programs.

Phil Schroeder said the DNR is interested in making the UAA process available to anyone interested in going through the process themselves. They are working to set up a training through Internet. The first training will be held later May. A notice would be sent to the WQCC group and all municipalities who may be impacted. The CSO Workgroup will meet in the afternoon today to discuss the CSO rule to try to improve a method of a long-term control plan making it a major part of their compliance options. There are 5-6 cities with CSOs.

Mohsen Dkhili mentioned that the Water Protection Program is moving locations from 205 Jefferson Street to 1101 Riverside Drive in Jefferson City. The mailing address will remain P. O. Box 176. Phone numbers should also remain the same.

Tony Thorpe mentioned the Lake of Missouri Volunteer Program data will be available as a .pdf document on the Internet today.

Becky Shannon mentioned that EPA announced the availability of a Targeted Watersheds Grant. This is a national competition. The Governor nominates projects. Proposals are due to DNR by April 28, 2005 and due to EPA by May 19, 2005. EPA has also announced availability of funding under their Water Quality Cooperative Agreement Grants. There will be a Clean Water Forum on May 25, 2005. The objective of this forum is policy-related discussions. Ideas and/or suggestions are welcome.

Meetings & Conferences

May	20-25	River Rally Conference, Keystone, Colorado
	22-25	Missouri River Conference, Pierre, North Dakota
June	6-8	Nutrient Management Workshop, Lied Conference Center, Nebraska City, NE
	7-9	Conflict Management and Resolution, Lied Conference Center, Nebraska City, NE
Sept.	13-15	It's The Water Workshop, Hannibal, Missouri